

(FILE 'HOME' ENTERED AT 11:41:31 ON 04 MAR 2004)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 11:41:48 ON 04 MAR 2004

L1 178964 S (MUTAGENESIS)
L2 509 S L1 AND HETERODUPLEX?
L3 20 S L2 AND (POLYMERASE# AND EXONUCLEASE#)
L4 11 DUP REM L3 (9 DUPLICATES REMOVED)
L5 1878 S CEL(W)I OR FEN1 OR ENDONUCLEASE (W) (VII OR I) OR CLEAVASE
L6 143 S L5 AND LIGASE
L7 7 S L6 AND MUTAGEN?
L8 7 DUP REM L7 (0 DUPLICATES REMOVED)
L9 11408 S HETERODUPLEX?
L10 113 S L9 AND (L5)
L11 36 S L10 AND POLYMERASE
L12 23 DUP REM L11 (13 DUPLICATES REMOVED)
L13 23 DUP REM L12 (0 DUPLICATES REMOVED)
L14 190 S RANDOM (9A) REPAIR?
L15 136 S L14 AND (DNA OR NUCLEIC OR OLIGO?)
L16 50 S L15 AND (MISMATCH? OR VARIAT? OR MUTA? OR HETERODUPLEX?)
L17 23 DUP REM L16 (27 DUPLICATES REMOVED)
L18 1278 S (REPAIR? OR CORRECT?) (5A) (PARTIAL? OR INCOMPLETE? OR PARTLY
L19 117 S L18 AND POLYMERASE
L20 8 S L19 AND LIGASE
L21 4 DUP REM L20 (4 DUPLICATES REMOVED)
L22 38 S L18 AND MUTAGENESIS/TI
L23 15 DUP REM L22 (23 DUPLICATES REMOVED)
L24 13 S L9 (9A) PARTIAL? (3A) (REPAIR? OR CORRECT?)
L25 6 DUP REM L24 (7 DUPLICATES REMOVED)
L26 1008 S INCOMPLETE (3A) (REPAIR? OR CORRECT?)
L27 0 S L26 AND L5
L28 125 S MUTAGENESIS AND L5
L29 89 DUP REM L28 (36 DUPLICATES REMOVED)
L30 7 S L29 AND HETERODUPLEX?
L31 82 S L29 NOT L30
L32 2205 S PADGETT?/AU
L33 3 S L32 AND HETERODUPLEX?
L34 947 S FITZMAURICE?/AU
L35 2 S L34 AND MISMATCH?

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MEDLINE

DN PubMed ID: 7788530
 TI In vitro processing of **heteroduplex** loops and mismatches by **endonuclease VII**.
 AU Birkenkamp K; Kemper B
 CS Institute for Genetics, University of Cologne, Germany.
 SO DNA research : an international journal for rapid publication of reports on genes and genomes, (1995) 2 (1) 9-14.
 Journal code: 9423827. ISSN: 1340-2838.
 CY Japan
 DT Journal; Article; (JOURNAL ARTICLE)
 LA English
 FS Priority Journals
 EM 199507
 ED Entered STN: 19950807
 Last Updated on STN: 19950807
 Entered Medline: 19950727
 AB **Endonuclease VII** is a Holliday-structure resolving enzyme of phage T4 which cleaves at junctions of branched DNAs and at mispairings. In extension of these findings we report the following: i) **Endonuclease VII** can discriminate between a large **heteroduplex** loop and a TT mismatch arranged in tandem, 6 nt distant from each other, in the same **heteroduplex** molecule. The enzyme cleaves two nucleotides 3' from the base of the loop or the TT mismatch. ii) Similar to its reactions with mismatches cleavage of **heteroduplex** loops by endonuclease VII can also initiate correction of perfect double-strandedness by T4 DNA **polymerase** and T4 DNA-ligase in vitro. Loops of 8 nt and 20 nt were repaired efficiently. iii) For the first time **endonuclease VII** cleavage sites were also mapped in single-stranded DNA if it was part of the 20-nt loop. This suggests that looping of single-stranded DNA can induce formation of secondary structures, which are recognizable by **endonuclease VII**.

Q447.D67

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